

dock, give it a more dock-shape appearance. The lock-walls are advancing to completion—the top-stones in several places having already been finished. The large gates will soon be completed and hung. The excavations are also progressing.

**Blackburn.**—Another effort is being made to erect the proposed exchange. It is proposed that the building and purchase of land shall not exceed 20,000*l*. Several of the most respectable firms have given their patronage to the project. The site selected fronts the old market-place.

**Newcastle.**—Mr. Grainger, says the *Gateshead Observer*, has commenced the removal of the old buildings in Nuns'-gate, at the end of Grainger-street, preparatory to widening the thoroughfare, and erecting a row of respectable shops and houses of the same style of architecture as Grainger-street, and transforming the shabby passage called Nuns'-lane into a spacious arcade with shops on each side, the arcade being covered with glass after the style of the Crystal Palace. The whole is expected to be complete by November 11. With reference to the scheme at present on the tapis for the establishment of corporation gas works, on the profitable model of those at Manchester, a protest is being made by the inhabitants and ratepayers against the purchase of the old works. The protesters state, that being convinced that extensive new gas works, possessing all the recent improvements which modern science has developed for the production of pure and brilliant gas, can be established for less than 60,000*l*, they view with indignation the intention of this corporation to give 116,000*l*. for old and dilapidated works, not worth 40,000*l*., and which will require an outlay of 30,000*l*. to render them sufficient to meet the increasing requirements of the inhabitants.

**Sunderland.**—The masons employed by the contractors of the south entrance of the dock have struck work because their employers refused to pay them more than twenty shillings per week, the men asking twenty-four.

**Glasgow.**—The local *Herald* states that the new terrace and "Palais Royale Arcade," (the latter not yet built) will have cost Mr. Scott, of Kelly, the proprietor, who is one of the magistrates of the city, at least 97,000*l*. The site alone cost 37,000*l*., the buildings already erected 20,000*l*., and the arcade, on the plan of the Palais Royale, is estimated at not less than 40,000*l*.. more.

#### ORDNANCE SURVEYS.

##### MEETING OF CIVIL ENGINEERS.

ON 29th ult. a general meeting of civil engineers and surveyors of Scotland was held in the Waterloo Hotel, Edinburgh, for the purpose of considering the means to be adopted by the profession for the protection of their interests as respects the general survey of the kingdom, and for determining what steps should be taken for securing to the civil engineers a proper share of the business of the survey, as well for accelerating the completion of this national undertaking. Amongst those present were the following civil engineers resident in or connected with Edinburgh:—Messrs. Thomas Grainger, Duncan Macallum (of the firm of Macallum and Dundas), William Campbell, F. Shepherd, James W. Stewart, George Gibson, James Bishop, James Lorimer, George C. Bruce, W. A. Jardine, Robert Barlas; James Knox, land surveyor and civil engineer; R. Kirkwood, ditto; George Cowie, ditto; Thomas Maclean, ditto; Henry J. Wylie, ditto; John Young, surveyor; George Forsyth, ditto; George James, ditto; John Houston, ditto; John Rennie, ditto; James Thomson, C.E., Glasgow; William B. Ferguson, engineer and surveyor, Aberdeen; James Agnew, C.E., Perth; P. D. Brown, C.E., Perth; George Mackay, surveyor, Inverness; John Kerr, surveyor, Dunee; John Willet, civil engineer, Aberdeen; &c.

Mr. T. Grainger was called to the chair, and read letters of apology for non-attendance and concurrence in the objects of the meeting, from the following civil engineers and others;—Messrs. William Blackadder, Glamis; George M'William, Sheriffston, Elgin; Alex.

Duncan, Banff; John Martin, ditto; G. Campbell Smith, ditto; Joseph Mitchell, Inverness; N. Maclean, ditto; D. G. T. Macdonald, Dingwall; Alex. Smith, Aberdeen; A. Gibb, ditto; Robt. Milne, ditto; Arthur Farquhar, ditto; Wm. Henderson, ditto; Wm. Boulton, Laurencekirk; John Morgan, Stonehaven; Wm. Young, Stirling; George Martin, Glasgow; John Mason, Dunbar.

The Chairman and other gentlemen then addressed the meeting, and appropriate resolutions were passed and petitions to both Houses of Parliament, authorised to be prepared by a committee appointed for the purpose, and consisting of the Chairman and Messrs. M'Callum, Campbell, Ferguson, Bruce, and Barlas. The petition to the House of Lords was agreed to be sent to the Duke of Buccleuch for presentation, and that to the House of Commons to Sir Wm. Gibson Craig.

#### HOLLAND v. THE EARL OF HARBOROUGH.

I quite agree with your correspondent, Mr. Thomas Holland, as to the manner in which this cause was referred.

I beg, however, on behalf of the Earl of Harborough, to say that he is not at all responsible for the costly way in which it has been carried on, as he was willing to leave the reference in the hands of the respective attorneys, but plaintiff insisted upon being represented by counsel.

Melton is half-way between Leicester and Grantham, where the chief witnesses on each side resided: the court was consequently held there to accommodate them, and not Lord Harborough; it was easier of access for plaintiff's than defendant's witnesses, and the arbitrator was nearer his work, as he had to go to Stapleford and Oakham to view the buildings.

As to the charge that his lordship either *dared not* or *would not* appear in court, allow me to say, his lordship entertains too high a sense of moral feeling and honour ever to give evidence in his own cause, and that if I could have overcome his sensitiveness on this point, the arbitrator's decision would have been in his lordship's favour.

The proposition of a fifth architect or umpire emanated from me, and not from the arbitrator. I know too well what arbitrations are ever to wish to leave the judge in such cases to decide between two opposing factions, as he is almost sure to split the difference. Sir Eardley Wilmot said he should have done so in this case, and he now says he has adopted the umpire's report, but to which latter assertion I beg most respectfully to dissent. I do not, however, wish to impugn his judgment; still he could not think very highly of plaintiff's case, whilst in awarding him 50*l*., which included 32*l*. for some French cements not received by defendant, he ordered him to pay one-third of the costs of the reference.

Lord Harborough was always willing to abide by the contracts, and to pay for the other work by measure and value; but plaintiff insisted upon having the whole thrown open to measure and value, which led to his commencing legal proceedings.

The statement with regard to the number of barristers and attorneys employed is exaggerated and incorrect.

The umpire's report was a perfect justification of Lord Harborough's conduct, and with that report before him it is difficult to imagine how Sir Eardley could have come to such a decision.

I am, Sir, &c.

FRED. MALIM, Defendant's Attorney.

**THE CITY GUILDHALL.**—I went a few days since into the Guildhall in the City, and was much struck with its poverty and inappropriate appearance, considering it is the Hall of one of the greatest cities in the world; a building in which all their great meetings and elections are held; the room in which all their splendid entertainments are given on the election of their first magistrate; and one in which all distinguished men and foreigners are entertained; and considering they are now on the eve of entertaining their Sovereign and all the eminent and distinguished characters in the country, as well as foreigners, I cannot help thinking it would be an excellent opportunity on the part of the lord mayor, aldermen, and citizens at large, to vote a sum of money in order to render the Hall worthy of the occasion, and that it should be the admiration and praise of foreigners.

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#### CAST IRON IN CONSTRUCTION.

IN connection with a recent statement in your paper as to cast-iron, let me add, I was some years ago in a place that was quite dark, and perfectly dry, and as little affected by changes of atmosphere as any place I have ever met with, when I heard a loud report. Thinking the building was falling, I retreated rapidly. After myself and men had waited some time, we ventured back, and found that a large cast-iron fly-wheel, about 9 feet diameter, and of great substance, had burst into many pieces. I ascertained that that wheel had been there three years untouched, and when I examined the pieces I could find no flaw, and that the metal was good, nor could I find any one to account for it thus breaking.

P.

#### Books.

*The Architecture of the Heavens.* By J. P. NICHOL, LL.D., Professor of Astronomy in the University of Glasgow. Ninth edition, entirely revised and greatly enlarged, and illustrated. H. Balliere, Regent-street, 1851.

THIS is a record of new "signs and wonders in the heaven above,"—a record written in the spirit of wonder itself and reverent feeling, straining worthily at a befitting style of sublimity in which to reveal the celestial and tremendous visions of the astronomic seers of the present time. By the aid of numerous illustrative engravings we have here opened up to us all those strange and astonishing sights to which Lord Rosse and his confrères are bearing witness. In fact, this is not so much a ninth edition of an old work as a new one comprising the old and much more than the old. We have here closer views—and views how changed!—of old and familiar forms, and even of forms that but lately were new and astonishing even in their less definite and extraordinary aspects. Hazy nebulae have been resolved into wisps and spirals, fire-wheels, and "true lovers' knots" of stars,—star-dust, as the inconceivable multitudes in these separate aggregations have led them to be designated. Indeed, as Professor Nichol very truly remarks, "investigation regarding such aggregations is virtually a branch of atomic and molecular inquiry,"—with stars in place of atoms—mighty spheres in place of "dust"—"the firmament above" instead of "the firmament beneath." In fact, the astronomer, in sweeping, with his telescopic eye, the "blue depths of ether," is, as it were, some Lilliputian inhabitant of an atom itself, or rather of one little corner of an atom, prying into the atomic structure of some Brobdingnagian world of "star-dust," organised into spiral and other elementary forms—of life, it may be, something like our own. The infinite height appears, in short, like a mirror of the infinite depth, and we know not precisely where we stand between the two immensities of depth and height!

The shapes evolved by the wonderful telescope of Lord Rosse are, many of them, absolutely fantastical—wonder and awe are mingled with almost ludicrous feelings in contemplating the strange apparitions—strange monstrosities, we had almost called them—that are depicted on the black ground of the illustrations. One aggregation looms forth out of the darkness like the skeleton face of some tremendous mammoth, or other monstrous denizen of ancient time, with two small fiery eyes, however, gazing out of its great hollow orbits. Another consists of a central nucleus, with arms of stars radiating forth in all directions, like a star-fish, or rather like the scattering fire sparks of some pyrotechnic wheel revolving. A third resembles a great wisp of straw, or twist or coil of ropes,—a fourth a cork-screw or other spiral seen on end,—a fifth a crab,—a sixth a dumb-bell,—many of them scrolls or rolls of some thin texture seen edgewise, and so on. It is even a suggestion of the author's that some of these spirals and armed wheels may be revolving yet in the vast ocean of space in which they are engulfed.